# The

# Standards



News on the DOE Technical Standards Program

# Towards Strategic Management of Standards Activities at NIST A Model for Any Enterprise

By Krista Johnsen Leuteritz\*. Ms. Leuteritz is currently the special assistant to the director of the Office of Standards Services within Technology Services at the National Institute of Standards and Technology (NIST). Johnsen Leuteritz focuses on many facets of NIST's NTTAA implementation. Along with her strategic standardization efforts, she recently revised NIST's Standards Committee Participation Guidelines.

#### Introduction

The National Technology Transfer and Advancement Act (NTTAA) provides impetus for NIST's standards activities. This law directs NIST to provide public sector leadership for voluntary standards¹ and conformity assessment.

To carry out these new responsibilities, NIST developed an Implementation Plan² for the NTTAA that requires the development of strategic standards management plans by NIST and other agencies for their standards activities.

This paper provides suggestions for incorporating standards management into the

traditional strategic planning that NIST and other federal agencies conduct. Such incorporation of strategic standards manage-

"...incorporation of strategic standards management is valuable for any organization that desires to create a standards environment that connects people and the standards management system within and across its units. "

ment is valuable for any organization that desires to create a standards environment that connects people and the standards management system within and across its units. Strategic standards management can ensure that federal participation in standards activities does not result solely from happenstance and individual interests, but rather fulfills expressed programmatic needs that have been rigorously examined and thoughtfully planned. The strategic approach described in this paper moves toward a more integrated and systematic approach to defining and implementing standards activities.

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For several years, the American National Standards Institute (ANSI), working closely with industry, has had a program for strategic standards management. The next section describes this approach.

# ANSI's Use of Strategic Standards Management

ANSI created a system called Strategic Standardization Management or SSM™³ in the early 1990s. Private industry users of this system have defined it as "a management discipline and methodology that investigates all aspects of standardization across a business, and/or industry; then defines, recommends, and implements appropriate

strategies and policies to leverage standardization so that a firm can gain competitive advantage and avoid disadvantage." Strategic standardization can

also be described as "the integration of several standardization products, services, processes, and subsystems to facilitate implementation of a complete system. These systems can then be implemented quickly and efficiently."<sup>4</sup>

This strategic standardization management concept extends beyond traditional standards committee activities. Many of the elements of this process are global in nature and have the potential for major impact on the mission and bottom line of a company or agency. In the keynote address delivered at the 1992 ANSI annual conference in Chicago, George Fisher, then chairman of both Motorola and the U.S. Council of Competi-

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### **Exert Your Influence!**

# Several Opportunities Available

You can exert technical and programmatic influence across DOE in several ways through your participation with the DOE Technical Standards Program!

**Sunsets**—This year especially, many existing Standards and Handbooks are due for their "5-year" reviews. You will have an opportunity to share your knowledge, experience, and the lessons you and others have learned by participating in the review, revision, or reaffirmation of existing standards.

**New Developments**—There are also several new Standards being considered for development in areas such as procedures, chemical safety, nuclear safety, training, and safety management.

#### **Tracking Your Opportunities**

The TSP Web Site—Keep an eye out for projects of interest by reading the TSP's

Standards Actions and The Standards Forum, or scanning the "Drafts for Review" or "Projects" sections of the TSP Web Site (http://tis.eh.doe.gov/techstds/). We list both DOE Technical Standards Projects and Standards Developing Organization (SDO) projects (e.g., ANS, ASTM, ASME, IEEE).

**DOE Technical Standards Projects**—The Technical Standards Program Office (TSPO) identifies a responsible individual for each DOE TSP development and revision project. You can contact these individuals, your organizational Technical Standards Manager (TSMs are listed on the TSP Web Site), or even the TSPO to express your interest.

**DOE Topical Committees**—Another way to participate in DOE-wide standards activities is to join (or start up!) one of our DOE

Topical Committees. These are also listed on the TSP Web Site, along with points of contact and, if available, links to the Topical Committee Web Sites.

SDO Participation—Remember that OMB Circular A-119 and the National Technology Transfer and Advancement Act of 1995 (Public Law 104-113) encourage federal agency participation in SDOs. If you're an SDO member, you might join their effort, or you can work through a DOE group or point of contact. You can also inform the TSPO of any ongoing SDO efforts that could serve DOE's needs!

Communicate Your Needs—Inform your TSM, the TSPO, a Topical Committee chair, or a SDO representative of any technical standards development needs you

may have to help you get it going on the right path.

There are real opportunities to use your knowledge, skills and abilities in a forum where openness, balance of interest, and due process are the key words. Participate with the TSP!

-Rick Serbu



Rick Serbu, TSP Manager

### ARE YOU A PLAYER?

Participation by DOE employees and contractors in the activities of Standards Developing Organizations (SDOs) is encouraged, and Federal agencies are required by law to provide periodic reports on agency participation in SDOs. DOE-TSL-4 accomplishes this for the Department, and the year 2000 list is now being compiled. However, information from the field is required in order to keep this report current. Check out DOE-TSL-4 on the TSP Web Site (http://tis.eh.doe.gov/techstds/) to see if your participation with SDOs on behalf of DOE is documented. Click on "DOE Technical Standards," then "Approved Standards", then open the file for DOE-TSL-4, "Personnel Involved in Non-Government Standards Activities" and look for your name and the groups where you participate. If you're not listed and should be or your information needs to be updated please provide your organization's Technical Standards Manager or the Technical Standards Program Office with a completed form DOE F 1300.2, "Record of Non-Government Standards Activity." You can access this form on the TSP Web Site under "News/Contacts", "What's New", and "Forms."



he Technical Standards Managers (TSMs) are the backbone of the DOE Technical Standards Program! These knowledgeable individuals serve as their organization's standards point of contact and contribute to the coordination of Department-wide TSP activities. A great deal of their work time is spent in assuring that standards activities take place in a manner that will promote safe, economical, and efficient operations locally and across the DOE complex.

With nearly 70 active and mobile people involved in TSM activities, it can be a daunting task just to keep up with the retirements and reassignments affecting the TSM roster. This "Welcome Aboard" feature is designed to introduce you to the new TSMs and help you keep abreast of the rapidly changing make-up of the Technical Standards Managers' Committee (TSMC).

The TSMC welcomes the following recently added members.

Jean (pronounced "John") Burleson, TSM Wakenhut Services, Inc. P.O. Box 96027 Las Vegas, NV 89193-6027 Burleson@nv.doe.gov

John Cavanaugh, TSM
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Harold H. Gammage, TSM TENERA, LLC RFETS 1500 Cherry Street Louisville, Colorado 80027 Harold.Gammage@rfets.gov

### Ye**lcom**e Aboard !

Kenneth W. Hanks Sandia National Laboratories P.O. Box 5800, MS-1367 Albuquerque, New Mexico 87185-1367 kwhanks@sandia.gov

John J. Serocki, TSM U.S. Department of Energy EM-37, Cloverleaf Bldg., Rm 1003 Germantown, Maryland 20874 John.Serocki@em.doe.gov

Michael K. (Mike) Tucker, TSM U.S. Department of Energy Grand Junction Office 2597 B 3/4 Rd.
Grand Junction, CO 81503-2567 mtucker@doegjpo.com



#### **New EU Web Site**

The European Standards Organizations have a new Web site (http://www.newapproach.org/home.asp) that provides access to a list of the "New Approach Directives" and the associated standards. The intent is to limit legislation to essential requirements that are of public interest. There is a guide to the implementation of the directives, an explanation of essential and fundamental principles, and a discussion of the term "harmonized standards." The text of the Directives is given along with a title list of the officially approved harmonized standards. There are links to CEN, CENELEC, ETSI, and EFTA and a key word search capability for standards and product families.



Editor ...... Marty Marchbanks

**Distribution:** If you would like to have your name added to (or removed from) the Technical Standards Program mailing list, or you need to make an address change, please notify Marty Marchbanks, Oak Ridge National Laboratory (ORNL), 865-241-3658; Fax: 865-574-0382; e-mail: **mmf@ornl.gov**.

**Comments:** If you have any questions or comments please contact Rick Serbu, EH-31, 301-903-2856; e-mail: **Richard.Serbu@eh.doe.gov**. If you have any questions or comments on DOE standards projects, please call Don Williams, ORNL, 865-574-8710; e-mail: **williamsdljr@ornl.gov**.

**Publication:** ORNL and DOE's ES&H Technical Information Services posts *The Standards Forum* quarterly for the DOE Technical Standards Program at <a href="http://tis.eh.doe.gov/techstds/">http://tis.eh.doe.gov/techstds/</a>.

#### **Technical Standards Manager Spotlight**

Kathy Brack is Department Manager for the Quality Management Department of Mason & Hanger Corporation (MHC) at the Pantex Plant near Amarillo, Texas. MHC is a subsid-

iary of Day & Zimmermann, a privately owned

company founded in 1901 to help businesses, industries, and governments keep pace with rapid technological advances.

The Pantex Plant mission is to "Maintain America's Nuclear Stockpile to Preserve Our National Security." As the management and operating contractor, MHC performs the following work:

- Nuclear weapons evaluation, maintenance, and dismantlement;
- High explosives component fabrication;
- Nuclear materials mission program including special nuclear materials staging and storage;
- Demilitarization and sanitization of components from dismantled nuclear weapons;
- Development, fabrication, and testing of chemical explosives and explosive components for nuclear weapons;
- Provision of predictive models and age-focused diagnostics required to anticipate weapons refurbishment; and
- Provision of advanced capabilities for designing, developing, and certifying components and systems.

Kathy holds a Bachelor of Science degree in engineering.

She has been the delegate Technical Standards Manager at Pantex since 1992. From 1991 to 1997, her primary responsibilities were in support of compliance assurance and development of the Pantex Standards/Requirements Identification Documents.

As the Quality Management Department Manager, she manages resources to:

- · evaluate operational data,
- make recommendations to plant management for improvement of quality, economy and efficiency of products and processes including compliance to Quality Assurance requirements,
- establish policy, provide expertise, monitor quality program status
- identify opportunities for improvements in Quality Assurance, and
- provide leadership in the implementation of quality improvements.

Kathy Brack
Technical Standards Manager
Mason & Hanger Corporation
Amarillo, Texas

Kathy was introduced to consensus standards as a field safety engineer for an insurance company specializing in worker's compensation coverages. Industry consensus stan-

dards were used as the basis for recommendations to improve policy holder safety performance. Kathy remembers the surprise expressed by some policy holders when they discovered

the wide range of experience and knowledge captured by industry consensus standards. Many of those same policy holders recognized the opportunity to capitalize on the collective knowledge represented by standards. At the same time, Kathy recognized gaps in the available guidance for some industries, for example prevention of strains in the health care industry due to lifting, supporting, or catching patients.

She appreciates the DOE Technical Standards Program (TSP) which provides the means for members of the DOE complex to fill those gaps for our industry. Kathy told *The Standards Forum*, "The TSP process provides a forum with sufficient controls to promote communication and understanding between the various participants and observers. Although attainment of consensus takes

time, a thorough development and approval process provides a technically sound basis for agreement on ways to approach work."

Pantex has spent several years emphasizing adequacy of the Standards/Requirements Identification Documents and Authorization Basis Documents. The Pantex Technical Standards Pro-

gram has benefitted from the upgrades to these documents along with implementation of Integrated Safety Management. Taken together, these activities have increased the commitment of the plant to identify appropriate standards and assure their implementation. One such improvement is the current development of a master list of adopted technical standards and the functional manager responsible for implementation. Until recently, each functional manager was responsible for identifying and monitoring the standards applied to his or her program. With the development of a master list, changes to consensus standards can be monitored more efficiently by a single group.

Kathy enjoys teaching weekly Bible classes, and she shares an interest in history with her husband. They pursue this interest by planning vacations around visits to historical locations. She observes, "Working to understand the context of historical events and the perspectives of the participants improves my ability to relate to and communicate with employees and customers."



"The TSP process provides a forum with sufficient controls to promote communication and understanding between the various participants and observers. Although attainment of consensus takes time, a thorough development and approval process provides a technically sound basis for agreement on ways to approach work."

# **Savings Through Sharing**

### DOE Contractors' Supplier Quality Information Group (SQIG)

By: Steven Stein (631-344-5694, **stein1@bnl.gov**), chair of the Supplier Quality Information Group (SQIG). Mr Stein is a Quality Management Specialist in the Quality Management Office of Brookhaven National Laboratory.

The SQIG is a group of individuals within the United States Department of Energy's (DOE's) contractors complex, who in response to the concerns of customers and stakeholders, de-

veloped a strategy to minimize duplicate evaluations of suppliers for significant safety- and quality-related goods and services. The strategy included developing a common-supplier database, with the objectives of relieving suppliers of redundant evaluations, improving customer-supplier relationships, reducing costs, and providing standards for conducting evaluations of suppliers. Through efforts to identify a champion for this initiative, the SQIG was established in 1991. It has evolved into a group that focuses on lowering stakeholders' costs, promoting excellence in all aspects of supplier quality initiatives, and providing a forum wherein contractors

SQIG receives the DOE Energy Performance Excellence Commendation Award—December 2, 1999

From left, T. J. Glauthier (Deputy Secretary Of Energy), Pat Mars (SQIG, BN), and Steven Stein (SQIG, BNL).

Members of SQIG have distinguished themselves as innovators of a process that has achieved great success in saving government funds and maximizing the use of technology through

effectively sharing key information about the quality of suppliers. The savings are especially significant in the current downsizing environment being experienced by DOE and its supporting contractors. To date, SQIG has saved more than \$760,000 for its members and DOE. The concepts developed readily could be applied by other government organizations that seek to benchmark a working example of effective cooperation between a government agency, their principal contractors, and the private business sector.

In addition to the savings in costs and time afforded by sharing these evaluations, the following outstanding contributions have been made by the SQIG:

can share experiences and lessons-learned.

The main product of SQIG is a database of these evaluations. In addition, SQIG developed standards for the following: checklists for evaluating suppliers; qualifications of the assessors; evaluation plans; and evaluation reports. SQIG also provides guidance and assistance to its members and other DOE organizations on issues pertaining to the quality of the suppliers.

SQIG is a "virtual" organization. There are no physical headquarters nor physical plant (i.e., administrative offices or manufacturing buildings). It is a self-funding organization that does not generate any profit. All members of SQIG work on a voluntary basis under the sponsorship of their company's management.

SQIG currently consists of 30 organizations (mostly privately owned) located throughout the United States. Participation in SQIG is voluntary and open to the DOE and its contractors. The SQIG information is to be used solely by the M&O (Management & Operating), IMC (Integrating Management Contractor), and subcontractors (including all tiers) to support DOE-funded work. Membership is established by signing a Memorandum of Understanding (MOU) committing to the policies and requirements defined in a charter. "Participating Contractors" include both members and participants (non-members who have not signed the MOU).

- SQIG has a forum for quality professionals throughout the DOE complex to network and approach common issues in assessing suppliers with an integrated team approach.
- SQIG has established a Web site that provides summary information on these evaluations, contacts, and other information pertinent to supplier quality assurance.
- The SQIG database allows members to announce upcoming evaluations so that other SQIG members can participate.
- SQIG has developed standardized evaluation checklists that are available to all SQIG members through the Web site.
- SQIG has developed a valuable approach to standardize the assessor's qualifications, evaluation plans, and reports.
- SQIG conducts joint and regional evaluations of suppliers that offer opportunities for savings by reducing travel costs and maximizing resource efficiencies.
- SQIG is a DOE Topical Committee for issues relating to the quality of suppliers.

In recognition of its work, the SQIG was presented with the Vice President Hammer Award in December 1998, and the DOE Energy Performance Excellence Award in December 1999.

Visit the SQIG Web site at http://www.lanl.gov/sqig or contact Steven Stein to learn more about SQIG

#### April 10-13, 2000

# 2000 IFW - The 15th Annual Industrial Fire World Conference and Exposition

Adam's Mark Hotel - Houston, Texas

A trade show and training conference for the industrial fire, safety and emergency response professional. Innovations and techniques in handling worst-case scenarios will be discussed with experts from around the world.



For more information, contact Thomas G. Scarbrough, 301-415-2794, **tgs@nrc.gov**.

#### July 23-26, 2000

## International Joint Power Generation Conference & Exposition (IJPGC&E)

Sheraton Bal Harbour - Miami Beach, Florida

Sponsored by ASME's Power, Nuclear and Fuels and Combustions Technologies Divi-

sions, this meeting is widely regarded as one of the power industry's most technically acclaimed events.

For more information, see http://www.asme.org/events/.

#### May 14–18, 2000

## 2000 National Fire Protection Association World Fire Safety Congress & Exposition™

Colorado Convention Center - Denver, Colorado

The World Fire Safety Congress and Exposition™ is a premier educational conference featuring nearly 100 educational sessions led by well-respected industry leaders; the largest fire protection and life safety trade show in North America; and an opportunity to have a voice in NFPA's consensus code-making process.

#### June 4-8, 2000

# 2000 American Nuclear Society Annual Meeting and Embedded Topical Meetings

Town & Country Resort and Convention Center - San Diego, California

Embedded International Topical Meeting: Advanced Reactor Safety

4th Embedded Topical Meeting: DOE Spent Nuclear Fuel and Fissile Material Management

#### June 25-28, 2000

# American Society of Safety Engineers Conference and Exposition

Orange County Convention Center - Orlando, Florida

More than 80 educational sessions on manufacturing, transportation, healthcare, leadership, environment, health and safety management, and more. More than 300 exhibitors showcase the latest in safety, health and environmental products and services. For more information, check out the conference home page, http://www.asse.org/aorlan.htm.

#### July 17-20, 2000

# The Sixth Nuclear Regulatory Commission/American Society of Mechanical Engineers Symposium on Valve and Pump Testing

Hyatt Regency Washington - 400 New Jersey Avenue, NW, Washington, D.C.

An exchange of information on technical, programmatic, and regulatory issues associated with the testing of valves and pumps used in nuclear power plants.

#### July 23-27, 2000

#### 2000 ASME Pressure Vessels and Piping Conference

The Westin Hotel - Seattle, Washington

Theme: A Century of Progress in PVP Technology

More than 150 paper and panel sessions are planned, as well as tutorials, NDE and software demonstrations. The ASME Pressure Vessels and Piping Division will sponsor this Conference with participation by the ASME NDE Division.

The Web site at http://www.asme.org/conf/confers.html has more information.

#### October 18, 2000

#### **2000 World Standards Day Celebration**

Washington, D.C.

World Standards Day is a celebration of the voluntary consensus standards system. A number of activities and events showcase the standards and conformity assessment participation of individuals from around the globe.

For more information, contact Jane Schweiker, American National Standards Institute, **jschweik@ansi.org**, 301-469-3363.

#### November 12-17, 2000

#### 2000 American Nuclear Society International Meeting

Marriott Wardman Park Hotel - Washington, D.C.

Embedded International Topical Meeting: "Best-Estimate" Methods in Nuclear Installation Safety Analysis

Embedded Topical Meeting: Nuclear Plant Instrumentation and Control & Human Interface Technologies

Embedded Topical Meeting: Nuclear Applications of Accelerator Technology

The Web site at http://www.ans.org/meetings/ has more information.





# Standards Actions



# Technical Standards Program Document Status (2/28/2000)

#### **Activity Summary**

In Conversion - 4

In Preparation - 44

**Out for Comment - 16** 

Published this Month - 4

#### 5-year Reviews

In Revision - 3

In Reaffirmation - 1

To be Superseded - 6

Cancellations Pending - 9

Cancellations in Progress – 1

No Current Action - 10

#### DOE Technical Standards Projects Initiated

#### The following DOE Technical Standards project was recently initiated.

If you have any questions or are interested in participating in the development of these standards, please contact the persons listed below. Complete listings of all DOE Technical Standards projects and their status are given in the TSP Web Site, http://tis.eh.doe.gov/techstds/. To access these lists from the home page, click on "DOE Technical Standards," then click on "Projects" in the left-hand frame to show the links to the project lists.

• Planning and Conduct of Operational Readiness Reviews, Project Number OPER-0003 (revision of DOE-STD-3006-95); Jeffry Roberson, DP-45, 301-903-8026, Fax 301-903-7065, **Jeffry.Roberson@ns.doe.gov**.

# DOE Technical Standards Recently Sent for Coordination

## The following draft DOE Technical Standard was recently distributed for coordination:

The appropriate Technical Standards Managers (TSMs) will provide selected reviewers with copies for comment. The full text of this document is available on the Technical Standards Program (TSP) Web Site at <a href="http://tis.eh.doe.gov/techstds/">http://tis.eh.doe.gov/techstds/</a>. If you wish to comment on this document, please notify your TSM.

 Guide for Good Practices for Occupational Radiological Protection in Uranium Facilities, Project Number SAFT-0072 (new DOE standard replacing EGG-2530, Health Physics Manual of Good Practices for Uranium Facilities, 1988); Peter O'Connell, EH-52; 301-903-5641, Fax 301-903-7773, Peter.O'Connell @eh.doe.gov. Comments are due April 3, 2000.

#### **DOE Technical Standards Recently Published**

#### The following DOE documents have recently been published:

- DOE-STD-1121-98, Internal Dosimetry, December 1999.
- DOE-STD-3003-2000, Backup Power Sources For DOE Facilities, January 2000 (revision of DOE-STD-3003-94).
- DOE-STD-7501-99, *The DOE Corporate Lessons Learned Programs*, December 1999 (revision of DOE-STD-7501-95 and Change Notice 1, September 1997).
- DOE-STD-3009-94, Preparation Guide for U.S. DOE Nonreactor Nuclear Facility Safety Analysis Reports, Change Notice No. 1, January 2000.

<u>DOE employees and DOE contractors</u> may obtain copies from the ES&H Technical Information Services, U.S. Department of Energy; telephone 1-800-473-4375 or Fax 301-903-9823.

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<u>Please Note</u> – Beginning with the year 2000, a new numbering convention is being used for the cover date and headers on all DOE Technical Standards documents. Instead of designating the year by listing only the last two digits of the year (e.g., "99" for the year 1999), all four digits will be used, as in the above document that is designated "DOE-STD-3003-2000."

Standards Actions (Continued from Page 7)

<u>Subcontractors and the general public</u> may obtain copies from the U.S. Department of Commerce, Technology Administration, National Technical Information Service, Springfield, Virginia 22161; telephone 703-605-6000 or Fax 703-605-6900.

Copies of DOE Technical Standards (i.e., DOE Standards, Specifications, Handbooks, and Technical Standards Lists) are also available on the TSP Web Site.

# DOE Technical Standards Proposed for Reaffirmation

# The following DOE Technical Standard has been proposed for reaffirmation:

• DOE-STD-1088-95, Fire Protection for Relocatable Structures, June 1995.

The Preparing Activity (EH-51) has coordinated a review of this document that found it to be technically current and recommended that it be reaffirmed. If you believe that this document should be updated (revised or changed) rather than reaffirmed, please provide the Preparing Activity with your essential or suggested comments by April 14, 2000. Please direct any comments or questions to Dennis Kubicki, EH-51, 301-903-4794, **Dennis Kubicki@eh.doe.gov**.

# Non-Government Standards American National Standards Institute

The American National Standards Institute (ANSI) publishes coordination activities of non-Government standards (NGS) biweekly in *ANSI Standards Action*. Recent electronic copies (no hardcopies are produced) are available on the ANSI Web site at <a href="http://web.ansi.org/rooms/room\_14/">http://web.ansi.org/rooms/room\_14/</a>. Electronic back copies are available to ANSI members only. For information on site membership, ask your local ANSI contact. For information on individual or group ANSI membership, call Susan Bose at 212-642-4948, e-mail <a href="mailsbose@ansi.org">sbose@ansi.org</a>.

Hardcopy versions of published non-Government standards listed in this section may be obtained from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado, 80112, 800-854-7179, Fax 303-397-2740, **global@ihs.com**, **http://global.ihs.com**. Electronic delivery of selected documents is available through ANSI at **http://webstore.ansi.org**. Copies of the listed draft standards and the procedure for commenting on the same may be obtained by contacting the standards developing organization.

The following listings are extracted from ANSI Standards Action and are representative of NGS development activities that may be relevant to DOE operations. Refer to ANSI Standards Action for a more extensive listing of changes and new publications, standards developing organizations, and additional information about submitting comments. Additional information on ANSI activities and available non-Government standards can be found on the ANSI Web site, http://www.ansi.org, or through the National Standards System Network, http://www.nssn.org.

<u>The following American National Standards are cur-</u> <u>rently in coordination</u> (comment due dates follow each entry):

- AISI 1996 CFSSPEC-SUPPLEMENT-NO-1, 1996 Specification for the Design of Cold-Formed Steel Structural Members Supplement No. 1 (new standard) - March 28, 2000.
- ASHRAE 147P, Reducing Emission of Fully Halogenated Chlorofluorocarbon (CFC) Refrigerants in Refrigeration and Air-Conditioning Equipment and Applications (new standard)
   April 11, 2000.
- ASHRAE 153P, Method of Testing for Capacity Rating of Four-Way Refrigerant Reversing Valves (new standard) - March 28, 2000.
- ASHRAE 34I, Number Designation and Safety Classification of Refrigerants, Designation and Classification for Refrigerant 414A (supplement to ANSI/ASHRAE 34-1992) -March 28, 2000.
- ASME A112.4.4M, Rigid Unshielded Couplings for Drain, Waste, and Vent (DWV) Systems (new standard), March 28, 2000.
- C37.06.1, High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis Designated Definite Purpose for Fast Transient Recovery Voltage Rise Times (revision of ANSI C37.06.1-1997) - March 28, 2000.
- C37.16, Low-Voltage Power Circuit Breakers and AC Power Circuit Protectors - Preferred Ratings, Related Requirements, and Application Recommendations (revision of ANSI C37.16-1997) - April 11, 2000.
- C37.46-1981 (R1992), Power Fuses and Fuse Disconnecting Switches, Specifications for [revision of ANSI C37.46-1981 (R1992)] March 28, 2000.
- NFPA 31, Standard for the Installation of Oil-Burning Equipment (revision of ANSI/NFPA 31-1997) March 31, 2000.
- NFPA 50, Standard for Bulk Oxygen Systems at Consumer Sites (revision of ANSI/NFPA 50-1996) - March 31, 2000.
- NFPA 59A, Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG) (revision of ANSI/NFPA 59A-1996) - March 31, 2000.
- NFPA 85, Combustion Systems Hazards Code (new standard) March 31, 2000.
- NFPA 101A, Guide on Alternative Approaches to Life Safety (revision of ANSI/NFPA 101A-1998) March 31, 2000.
- NFPA 105, Recommended Practice for the Installation of Smoke-Control Door Assemblies (revision of ANSI/NFPA 105-1998) - March 31, 2000.
- NFPA 111, Standard on Stored Electrical Energy Emergency and Standby Power Systems (revision of ANSI/NFPA 111-1996) - March 31, 2000.
- NFPA 287, Methods of Tests for Measurement of Material Flammability Using the Fire Propagation Apparatus (new standard) - March 31, 2000.

Standards Actions (Continued from Previous Page)

- NFPA 804, Standard for Fire Protection for Advanced Light Water Reactor Electric Generating Plants (revision of ANSI/ NFPA 804-1995) - March 31, 2000.
- NFPA 805, Standard on Performance Based Fire Protection for Light Water Reactor Electric Generation Plants (new standard) March 31, 2000.
- NFPA 901, Standard Classifications for Incident Reporting and Fire Protection Data (revision of ANSI/NFPA 901-1995) -March 31, 2000.
- NFPA 921, Guide for Fire and Explosion Investigations (revision of ANSI/NFPA 921-1998) March 31, 2000.
- NFPA 1851, Standard on Selection, Care, and Maintenance of Structural Fire Fighting Protective Ensemble Elements (new standard) - March 31, 2000.
- NFPA 1912, Refurbishing Fire Apparatus (new standard) -March 31, 2000.
- NFPA 1983, Standard on Fire Service Life Safety Rope and System Components (revision of ANSI/NFPA 1983-1995) -March 31, 2000.
- NFPA 1994, Protective Ensembles for Chemical or Biological Terrorism Agents (new standard) March 31, 2000.
- UL 242, Standard for Safety for Nonmetallic Containers for Waste Paper (revision of ANSI/UL 242-1994) - April 11, 2000.
- UL 536, Standard for Safety for Flexible Metallic Hose [revision of ANSI/UL 536-1984 (R1989)] March 13, 2000.
- Z87.1, Practice for Occupational and Educational Eye and Face Protection [revision of ANSI Z87.1-1989 (R1998)] - April 11, 2000.

The following American National Standards have been approved for publication: (Publication is to take place within six months following the date shown. Publication status and ordering information may be obtained from ANSI's Customer Service at 212-642-4900.)

- ANSI/ASME B30.9c-2000, Slings (supplement to ANSI/ ASME B30.9-1996) - January 3, 2000.
- ANSI/ASME B31.5-2000, Refrigeration Piping and Heat Exchanger Components (revision of ANSI/ASME B31.5-1992) January 19, 2000.
- ANSI/ASME MH1(b)-2000, Pallets, Slip Sheets, and Other Bases for Unit Loads (supplement to ANSI/ASME MH1-1007)
   January 19, 2000.
- ANSI/AWWA C222-99, Polyurethane Coatings for the Interior and Exterior of Steel Water Pipe and Fittings (new standard) December 30, 1999.
- ANSI/IEEE C37.010-1999, Application Guide for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis [revision of ANSI/IEEE C37.010-1979 (R1989)] - January 13, 2000.

- ANSI/IEEE C37.72-1999, Standard for Manually-Operated Dead-Front Padmounted Switchgear with Load/Interrupting Switches and Separable Connectors for Alternating-Current Systems (new standard) - January 14, 2000.
- ANSI/IEEE C37.113-1999, Guide for Protective Relay Application to Transmission Lines (new standard) January 13, 2000.
- ANS/IEEE C135.1-1999, Standard for Zinc-Coated Steel Bolts and Nuts for Overhead Line Construction (new standard) -January 13, 2000.
- ANSI/IEEE C135.2-1999, Standard for Threaded Zinc-Coated Ferrous Strand-Eye Anchor Rods and Nuts for Overhead Line Construction (new standard) - January 13, 2000.
- ANSI/IEEE 933-1999, Guide for the Definition of Reliability Program Plans for Nuclear Power Generating Stations (new standard) - January 13, 2000.
- ANSI/IEEE 1481-1999, Standard for Delay and Power Calculation System (new standard) January 14, 2000.
- ANSI/ISA S93.00.01-2000, Standard Method for the Evaluation of External Leakage of Manual and Automated On-Off Valves (new standard) January 13, 2000.

# The following international standards are currently in coordination (comment due dates follow each entry):

- 45A/376/FDIS, IEC 61540, Ed.1: Nuclear power plants Instrumentation and control systems important to safety Plant-wide radiation monitoring March 15, 2000.
- HD 464 S1:1988/prAE:1999, Dry-type power transformers -May 7, 2000.
- ISO/DIS 2719, Determination of flash point Pensky-Martens closed cup method (revision of ISO 2719:1988) April 14, 2000.
- ISO/DIS 4308-1, Cranes and lifting appliances Selection of wire ropes - Part 1: General (revision of ISO 4308-1:1986) -April 21, 2000.
- ISO/DIS 6707-1, Building and civil engineering Vocabulary -Part 1: General terms - April 7, 2000.
- ISO/DIS 7287, Graphical symbols for thermal cutting equipment (revision of ISO 7287:1992) April 28, 2000.
- ISO/DIS 13373-1, Condition monitoring and diagnostics of machines - Vibration condition monitoring of machines -Part 1: General procedures - April 21, 2000.
- ISO/DIS 14923, Thermal spraying Characterization and testing of thermally sprayed coatings - April 7, 2000.
- prEN 954-2, Safety of machinery Safety-related parts of control systems - Part 2: Validation - May 9, 2000
- prEN 1168-2, Precast concrete products Hollow core slabs for floors Part 2: Reinforced slabs May 9, 2000.

Standards Actions (Continued from Previous Page)

- prEN 13786, Automatic change-over valves having a maximum outlet pressure of up to and including 4 bar with a capacity of up to and including 100 kg/h, and their associated safety devices for butane, propane or their mixtures May 23, 2000.
- prEN 13791, Assessment of concrete compressive strength in structures or in structural elements - May 9, 2000.
- prEN 13792, Colour coding of taps and valves for use in laboratories May 9, 2000.
- prEN 13793, Thermal insulating products for building applications Determination of behaviour under cyclic loading May 9, 2000.
- prEN 13794, Respiratory protective devices Self-contained closed-circuit breathing apparatus for self rescue - Requirements - May 16, 2000.
- prEN 50266-2-1, Common tests methods for cables under fire conditions - Test for vertical flame spread of verticallymounted bunched wires or cables - Part 2-1: Procedures -Category A F/R - May 7, 2000.
- prEN 50340, Hydraulic cable cutting devices Devices to be used on electrical installations with nominal voltage up to AC 30 kV - March 8, 2000.
- prEN 60534-8-1, Industrial-process control valves Part 8: Noise considerations - Section 1: Laboratory measurement of noise generated by aerodynamic flow through control valves (IEC 60534-8-1:1986) - April 7, 2000.
- prEN 62040-3, Uninterruptible power systems (UPS) Part 3: Method of specifying the performance and test requirements (IEC 62040-3:1999, modified) - March 8, 2000.
- prEN ISO 14691, Petroleum and natural gas industries Flexible couplings for mechanical power transmission - General purpose applications (ISO 14691:1999) - May 16, 2000.
- prEN ISO 15615, Gas welding equipment Acetylene manifold systems for welding, cutting and allied processes Safety requirements in high-pressure devices (ISO/DIS 15615:1999) April 9, 2000.
- prHD 384.4.481 S1, Electrical installations of buildings Part 4: Protection for safety - Chapter 48: Choice of protective measures as a function of external influences - Section 481: Selection of measures for protection against electric shock in relation to external influences (IEC 60364-4-481:1993, modified) - May 7, 2000.

# The following newly published international standards are available:

- IEC 60068-2-47 Ed. 2.0 b:1999, Environmental testing Part 2-47: Test methods Mounting of components, equipment and other articles for vibration, impact and similar dynamic tests.
- IEC 60099-1 Ed. 3.1 b:1999, Surge arresters Part 1: Nonlinear resistor type gapped surge arresters for a.c. systems.

- IEC 60146-2 Ed. 2.0 b:1999, Semiconductor converters -Part 2: Self-commutated semiconductor converters including direct d.c. converters.
- IEC 60439-1 Ed. 4.0 b:1999, Low-voltage switchgear and controlgear assemblies - Part 1: Type-tested and partially type-tested assemblies.
- IEC 60445 Ed. 3.0 b:1999, Basic and safety principles for man-machine interface, marking and identification - Identification of equipment terminals and of terminations of certain designated conductors, including general rules for an alphanumeric system.
- IEC 60695-1-1 Ed. 3.0 b:1999, Fire hazard testing Part 1-1: Guidance for assessing the fire hazard of electrotechnical products General guidelines.
- IEC 60825-9 TR3 Ed. 1.0 en:1999, Safety of laser products -Part 9: Compilation of maximum permissible exposure to incoherent optical radiation.
- IEC 61427 Ed. 1.0 b:1999, Secondary cells and batteries for solar photovoltaic energy systems - General requirements and methods of test.
- IEC 61502 Ed. 1.0 b:1999, Nuclear power plants Pressurized water reactors - Vibration monitoring of internal structures.
- IEC 61683 Ed. 1.0 en:1999, Photovoltaic systems Power conditioners - Procedure for measuring efficiency.
- IEC 61956 TR2 Ed. 1.0 b:1999, Methods of test for the evaluation of water treeing in insulating materials.
- IEC 62117 Ed. 1.0 b:1999, Nuclear reactor instrumentation -Pressurized light water reactors (PWR) - Monitoring adequate cooling within the core during cold shutdown.
- ISO 472:1999, Plastics Vocabulary.
- ISO 3534-3:1999, Statistics Vocabulary and symbols -Part 3: Design of experiments.
- ISO 13475-1:1999, Acoustics Stationary audible warning devices used outdoors - Part 1: Field measurements for determination of sound emission quantities.
- ISO 14031:1999, Environmental management Environmental performance evaluation Guidelines.
- ISO/TR 18455:1999, Petroleum products Calculation of specific energy of residual fuels from physical and compositional properties - Basic data.

# American National Standards Projects Initiated

The following is a list of proposed new American National Standards or revisions to existing American National Standards submitted to ANSI by accredited standards developers. DOE employees or contractors interested in participating in these activities should contact the appropriate standards developing organization. DOE-TSL-4 lists the DOE representatives on NGS committees. If no DOE representative is listed, contact the TSPO for information on participating in NGS activities.

Standards Actions (Continued from Previous Page)

**Environmental Industry Association** 

Office: 4301 Connecticut Ave., NW, Suite 300

Washington, D.C. 20008

**Fax:** 202-966-4824

Contact: Nate Wall, nwall@envasns.org

 Z245.30, Equipment Technology and Operations for Wastes and Recyclable Materials - Waste Container Safety Requirements (revision of ANSI Z245.60-1999).

#### **National Fire Protection Association**

Office: One Batterymarch Park

Quincy, MA 02269-9101

**Fax:** 617-770-3500

Contact: Arthur E. Cote, acotet@nfpa.org

 NFPA 1710, Organization and Deployment of Fire Suppression Emergency Medical Operations, and Special Operations Provided to the Public by Career Fire Departments (new standard).

#### **American Society for Testing and Materials**

Standards activities of the American Society for Testing and Materials (ASTM) are published monthly in ASTM Standardization News. Orders for subscriptions or single copies of ASTM Standardization News may be submitted to ASTM, Subscription Dept.-SN, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959. For information regarding ASTM membership, contact the Membership Services Department at 610-832-9691 (Fax 610-832-9667). ASTM publications may be ordered from the ASTM Customer Services Department at 610-832-9585 (Fax 610-832-9555). Comments on listed draft standards may be submitted by contacting the ASTM Standards Coordination Department at the above address. Questions may be addressed to the Technical Committee Operations Division at 610-832-9672 (Fax 610-832-9666). Additional information on ASTM activities is available on the ASTM Web site (http://www.astm.org). The following listings are extracted from ASTM Standardization News and are representative of NGS development activities that may be relevant to DOE operations.

### The following ASTM standards are currently in coordination: (the due date for all items is March 10, 2000).

- New Standard, Specification for Copper Seamless Heat Exchanger Tubes with International Enhancement (Ref. Z0955Z).
- New Standard, Specification for Polymide Flexible Cellular Thermal and Sound Absorbing Insulations (Ref. Z3874Z).
- New Standard, Specification for Vacuum Insulated Panels (Ref. Z7501Z).
- New Standard, Test Method for Characterizing the Effect of Exposure to Environmental Cycling on Thermal Performance of Insulation Products (Ref. Z7538Z).
- New Standard, Test Method for Hygroscopic Sorption Isotherms of Building Materials (Ref. Z7789Z).
- New Standard, Specification for Seamless and Welded Ferritic, Austenitic, and Duplex Alloy Steel Condenser and Heat Exchanger Tubes with Integral Fins (Ref. Z8259Z).

- A 20/A 20M-99a, Specification for General Requirements for Steel Plates for Pressure Vessels (revised standard).
- A 615/A 615M-96a, Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement (revised standard).
- A 688/A 688M-98, Specification for Welded Austenitic Stainless Steel Feedwater Heater Tubes (revised standard).
- A 887-89(1994), Specification for Borated Stainless Steel Plate, Sheet, and Strip for Nuclear Application (revised standard).
- D 1356-99b, *Terminology Relating to Sampling and Analysis of Atmospheres* (revised standard).

### The following newly published standards are available from ASTM:

- A 479/A 479M-99, Specification for Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels (revised standard).
- C 1711-99, Terminology Relating to Electrical Insulation (revised standard).
- E 261-98, Practice for Determining Neutron Fluence, Fluence Rate, and Spectra by Radioactivation Techniques (revised standard).
- E 509-97, Guide for In-Service Annealing of Light-Water Cooled Nuclear Reactor Vessels (revised standard).
- E 1005-97, Test Method for Application and Analysis of Radiometric Monitors for Reactor Vessel Surveillance, E 706(Illa) (revised standard).
- E 1171-99, Test Methods for Photovoltaic Modules in Cyclic Temperature and Humidity Environments (revised standard).
- E 1328-99, Terminology Relating to Photovoltaic Solar Energy Conversion (revised standard).
- E 1596-99, Test Methods for Solar Radiation Weathering of Photovoltaic Modules (revised standard).

# Comments, Questions, and Addresses

**Comments:** If you have any questions or comments, please contact Rick Serbu, EH-31, Manager, DOE Technical Standards Program Office (TSPO), 301-903-2856, Fax 301-903-6172, e-mail **Richard.Serbu@eh.doe.gov**.

Addresses: Standards Actions and The Standards Forum are now being published electronically and will be available only via your access to the TSP Web Site (http://tis.eh.doe.gov/techstds/). However, are maintaining our e-mail and surface mail distribution lists so that we can send you special notices concerning technical standards and the DOE Technical Standards Program. If you would would like to receive the special notices please contact Marty Marchbanks, ORNL, 865-241-3658, Fax 865-574-0382, mmf@ornl.gov, and give him your updated e-mail and surface mail addresses.

**Technical Standards Activities:** The TSPO would like to be kept informed of the status of technical standards that are being prepared or coordinated for DOE. Please provide this information to the TSPO at 865-574-7886, e-mail **lj8@ornl.gov**.

# Topical Committee Developments

Progress is being made to augment the current complement of 23 Technical Standards Program (TSP) Topical Committees listed on the TSP Home Page. The draft charter for a Procedures Topical Committee



has been reviewed, and a final text will soon be available for approval. The TSP has not yet seen the first draft of a charter for a proposed HEPA Filter Topical Committee.

The TSP continues to encourage members of DOE working groups or those who work in a functional area that could qualify as a TSP topical committee to contact M. Norman Schwartz, 301-903-2996, **Norm.Schwartz@eh.doe.gov**, or Richard Serbu, 301-903-2856, **Richard.Serbu@eh.doe.gov**. Those who take advantage of this opportunity will have the benefit of coordinating with their peers on technical standards activities and sharing expertise and lessons learned.



#### Fire Protection Topical Committee—Seeking Safety Improvements at Reasonable Costs

By: Dennis Kubicki, Chair, Fire Protection Topical Committee (301-903-4794, **Dennis.Kubicki@eh.doe.gov**)

The next meeting of the DOE Fire Safety Committee is scheduled for May 13, 2000, in Broomfield, Colorado. This will be in conjunction with the annual DOE / Contractor Fire Safety Workshop, which begins May 10, and will precede the National Fire Protection Association's (NFPA) World Fire Safety Exposition, which begins May 14 in Denver.

The agenda for the Committee meeting includes a discussion of a "working draft" of the revision to the "Primer on Spontaneous Heating and Pyrophoricity" (DOE-HDBK-1081-94) and the possible need for revisions to the Implementation Guide to DOE Orders 420.1 and 440.1, "Fire Safety Program," as well as other future initiatives. All interested individuals are welcome to attend. For additional information on the meeting or the Workshop, please contact Dennis Kubicki on 301-903-4794 (dennis.kubicki@eh.doe.gov).

In September, the Committee completed development of an Implementation Plan for NFPA 72, "National Fire Alarm Code," with the goal of liberalizing (reducing) the inspection and testing frequencies of some fire alarm/signalling system components. This follows a similar effort for NFPA Standard 25, "Inspection, Testing and Maintenance of Water-Based Fire Protection Systems." A copy of these plans can be found on the DOE Fire Protection Web Site (http://tis.eh.doe.gov/fire/).

The Committee has also completed action on a number of "Generic Equivalencies," which are rationalizations for the implementation of certain NFPA code requirements by alternate means. This is consistent with the "Equivalency Concept" that

is an aspect of all NFPA Standards. The Committee hopes to induce sites to implement the alternate schemes so as to reduce costs while maintaining an adequate margin of safety. The Generic Equivalencies are intended to be used to support a contractor initiated, site-specific request for approval for a code variance by the DOE Authority Having Jurisdiction.

#### **Joint Meeting Scheduled**

By: Don Ragland, Sandia National Laboratories-Albuquerque (SNLA) (505-845-9623, dragla@sandia.gov)



The DOE Topical Committees in Metrology and Accreditation and the DOE Standards Laboratory Managers of the Nuclear Weapons Complex are conducting their annual meetings backto-back at Honeywell/Kansas City (formerly Allied Signal/Kansas City) in Kansas City, Missouri, on March 20–24, 2000.

The Steering Committees of the three groups view this as an opportunity to conduct their annual meetings and comply with current DOE travel budget restrictions. All three groups share memberships and overlapping interests. According to Bob Wayland (SNLA), Secretariat for the Metrology and Accreditation Committees, and Jim Simons (SNLA), Chairman of the Standards Lab Managers, the meeting agendas should produce a certain synergy that the combined memberships can mutually exploit.

The timetables for the three meetings are being designed so that registrants can attend all or any part of the proceedings. This latitude should make it easier to attend for individuals on tight schedules but who want to participate.

The DOE metrologists will be focusing on current action items, including the establishment of mutually effective relations with DoD metrologists, a move that began at their last annual meeting. The accreditation folks will meet to assess their progress in the working group areas established at their last annual meeting and will form new initiatives to address ongoing goals.

Five speakers will address the groups on issues in accreditation, testing, analytical chemistry and accreditation, vacuum calibration capabilities, and the status of ISO 17025 and ANSI/NCSL Z540-1.

Attendance at these meetings is urged for anyone involved in taking measurements, collecting data, calibrating standards, and/or making decisions based on measurements or data; and for anyone interested in coordinating accreditation efforts among DOE laboratories and promoting DOE laboratories both in the national and international arenas.

For more information, interested persons should contact: Don Ragland, 505-845-9623, **dragla@sandia.gov**.





#### → Topical Committee Developments (Continued from Previous Page)

#### Metrology Committee Introduces Internet-Based Calibration Capabilities Matrix for DOE Laboratories



By: Don Ragland, Sandia National Laboratories-Albuquerque (SNLA) (505-845-9623, dragla@sandia.gov)

The DOE Metrology Committee has developed an Internetbased matrix that provides visitors to its Web site with an opportunity to easily determine which DOE laboratories offer calibration capabilities and in what particular areas of expertise.

The matrix contains 116 capabilities in 21 categories, distributed among 13 DOE laboratories. Clicking on a lab's acronym takes the visitor either directly to that facility's calibration Web site or provides them with an e-mail message screen already pre-addressed to an appropriate metrology point of contact person.

The matrix grew out of a desire among metrologists from DOE and DoD to mutually share information about calibration capabilities among laboratories within the two organizations. The Metrology Committee believes the matrix will benefit not only the DOE and DoD metrology communities but also be of value to national and international industries.

The matrix is accessible on the DOE Metrology Committee Web site: http://www.sandia.gov/metrology/mchome.html. Click on "Lab Capabilities."



### Accreditation Committee Launches New Web Site

By: Don Ragland, Sandia National Laboratories-Albuquerque (SNLA) (505-845-9623, **dragla@sandia.gov**)

The DOE Accreditation Committee is announcing its new Web site this month. Laura Kelly (LANL), the chairperson of the working group that developed this first version of the site, sees it as a forum for coordinating accreditation efforts among DOE laboratories and the promotion of DOE laboratories both in the national and international arenas. Like the metrology committee's Web site, the accreditation site resides on an external server at Sandia National Laboratories in Albuquerque, New Mexico.

Visitors to the site can access it at: http://www.sandia.gov/accreditation.



#### Biota Dose Assessment Committee— Technical Standard and Coordination/ Outreach Activities

By Stephen Domotor, Chair, Biota Dose Assessment Committee (202-586-0871; **Stephen.Domotor@eh.doe.gov**)

#### **Draft Technical Standard**

The Biota Dose Assessment Committee (BDAC) is continuing its work on the draft Technical Standard, "A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota" (Project ENVR-0011) with a goal of submitting it to the DOE-TSP review and approval process in late spring 2000. The biota dose evaluation methods and guidance contained in the Technical Standard are being refined in response to BDAC member comments received from previous reviews and resulting from the committee's August 1999 annual meeting.

#### **Coordination and Outreach**

We are continuing to broaden our topical committee to include interested and invited representatives from outside of DOE. This is in response to increasing national and international interest in the development of criteria for protection of biota against ionizing radiation, and in the graded approach developed by the BDAC as contained in our draft Technical Standard.

A representative of the committee gave a presentation on the graded approach and an overview of the BDAC at the Environmental Protection Agency's (EPA) annual Ecological Risk Assessment Forum held at Potomac, Maryland, February 2, 2000. The presentation was well received by approximately 35 EPA regional representatives responsible for reviewing site-based ecological risk assessments. Several EPA region representatives, through coordination with EPA headquarters, have expressed interest in participating in the BDAC.

Also, BDAC core team representatives have proposed a platform session titled "Advances and Issues in Evaluating Radiation Doses to Ecological Receptors" as part of the Society for Environmental Toxicology and Analytical Chemistry's (SETAC) annual meeting to be held in Nashville, Tennessee, November 12–16, 2000. A final determination of session topics and a call for papers should be forthcoming from SETAC in the next few months. We'll keep you posted.



ASTM Standardization News, covering standardization issues and standards development, is now on-line at http://www.astm.org. The magazine features ASTM technical committee standards development activities and publishes news about national and global standards activities. Current features in the new on-line version include: feature articles, commentaries, standardization news items from around the world, ASTM technical committees' standards development activities, and monthly profiles of ASTM members and their hobbies and interests. The January 2000 issue now on-line features an interview with ASTM's new Chairman of the Board, Harvey P. Hack, as well as an article on the current state of affairs in standards development for Hack's area of expertise, corrosion protection. For more information contact Maryann Gorman, Editor-in-Chief, 610-832-9606, Fax 610-832-9635, http://www.astm.org.

#### **Managing Change**

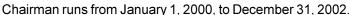
Rick Serbu describes the Department of Energy's (DOE) standards activities in an article entitled "Managing Change" that appears in the September 1999

issue of ASTM Standardization News. He explains DOE's involvement with standards developing organizations, the impact of DOE's standards program in the varied missions, function, and activities managed by DOE, and the continuously developing efforts of DOE to instill a standards-based culture in its operations. A brief history describes the development of the Department Standards Committee, the Technical Standards Program, the role of the Integrated Safety Management System, and other essential elements of DOE's far-reaching standards efforts. The article is an excellent summary of DOE's

on-going standards activities and, as such, should be of interest to readers who would like to gain a quick view of DOE's philosophy and approach to standards. Current DOE and contractor participants in the DOE standards program will appreciate the excellent overview and gain a new appreciation for the cooperative teamwork that characterizes the program.

# Spellman Elected Chair of NFSC

At the November 1999 meeting of the American Nuclear Society (ANS) - Nuclear Facilities Standards Committee (NFSC) in Long Beach, California, Donald J. Spellman of the Oak Ridge National Laboratory was elected chair of the NFSC. Don's tenure as



Don has served as a member of NFSC since 1985, a member of sub-committee MC-1 on nuclear design standards for five years, and as NFSC vice chair since 1998.

The NFSC is one of four consensus committees of ANS responsible for development, maintenance and management of National Consensus Standards that are eventually published as American National

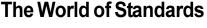
Standards by the American National Standards Institute (ANSI).

ANSI was formed in 1918 as the American Engineering Standards Council by five professional technical societies and three Government agencies. They became ANSI in 1969 and are responsible to coordinate standards from more than 260 trade, technical, professional, labor, and consumer organizations.

The ANS Standards Committee was formed in 1957 and developed the first American National Standard in 1968. Since then, ANS has accumulated a large number of standards and currently has 116 approved and 32 under development. The four consensus committees for ANS are: N-16, Nuclear Criticality Safety with 15 approved standards; N-17, Research Reactors, Reactor Physics, Radiation Shielding, and Computational Methods with 31 approved standards; RISC, Risk Informed Standards Committee, which has just been formed and has two standards under development; and NFSC, Nuclear Facilities Standards Committee with 70 approved standards and 25 standards under development.

The scope of NFSC is to develop and maintain standards for siting, design, and operation of nuclear facilities (other than those addressed by committee N-17) including radwaste management and site remediation and restoration. NFSC has eight subcommittees with as many as 50 writing committees active at any given time. Total membership of NFSC fluctuates between 350 and 400 engineers and technical staff depending on the number of active standards at the time.

For more information on the NFSC, contact Donald J. Spellman, 865-574-7891, Fax 865-574-8216, **spellmandj@ornl.gov**.





#### **NEWS BRIEFS**

# Standards and Standards Qualification

Dirk Van Hoesen, John Randolph, and Uri Gat make a strong case for high-quality standards and their application in international trade via an article entitled "Standards and Standards Qualification—A Case in Point" in the January 2000 issue of *ASTM Standardization News*. The writers forcefully make their point by relating the circumstances, difficulties, and frustrations experienced while trying to apply a promising, well-developed foreign technology in the absence of in-place standards and a corresponding qualification program. The costly alternatives imposed on the purchaser are described, and a case is developed for the importance of internationally recognized standards such as ISO 9000.



# DNFSB Urges Increased Use of VCSs Within the DOE Complex

In a Staff Issue Report dated February 7, 2000, John T. Conway, Chair of the Defense Nuclear Facilities Safety Board (DNFSB), urged DOE to determine if "process industry standards for the

design of safety-related control systems should be used on a broader scale for safety-significant systems within the defense nuclear complex." The comment was based on recent lessons learned at a DOE defense waste processing facility. The report may be viewed in its entirety at http://www.dnfsb.gov/sr.htm.



Federal Standardization Manual—2000 is now available through a link at the GSA Web site at: http://pub.fss.gsa.gov/pub/pubbyalpha.html. This manual provides guidance to executive agencies for the development of federal product descriptions consisting of federal specifications and qualified products lists, federal standards, and commercial item descriptions. It also provides information on the use and adoption of voluntary standards.

#### Towards Strategic Management of Standards Activities at NIST (Continued from Page 1)

tiveness, stated that "American companies must understand that standardization is a strategic business issue that has a direct impact on new product development." Standards decisions are now deemed to be too important to be left to low-level management.

Shifts toward more strategic consideration of standardization activities led a core of ANSI company members to sponsor a series of studies to investigate all aspects of the environment surrounding standardization. This group led several major research projects to confirm the paradigm shift in companies from mere use of standards and participation in standards committees to consideration of strategic standardization. Very simply, companies began to assess their standards activities in terms of their missions, goals, and overall strategic plans. They viewed standards activities as central to achieving key business goals. As a result, they participated in standards committees in accordance with recognized priorities, then included projected participation in budget forecasts. This approach be-

came embedded in the strategic standardization management focus and training and has contributed greatly to the use of  $SSM^{TM}$  as a tool to enhance the competitive advantage of U.S. companies.

An article published in ASTM Standardization News in 1997<sup>6</sup> points out that SSM™ requires that management recognize standards as more of a business issue than a technical one; and that global standards are used today as a basic vehicle for communicating requirements to customers and suppliers worldwide. That article also states that there is no doubt that failure to manage standards participation in the formal strategic planning and global design review processes will result in competitive disadvantage.

#### Strategic Standards Management at NIST

Since NIST recognizes and understands the role that standards play in the global marketplace, strategic standardization management can help NIST and its partners and customers maintain a competitive edge.

To facilitate this new approach, the Standards Advisory Committee (SAC) at NIST has been tasked to address strategic standards questions, many of which are described in the "Checklist for Strategic Standards Management Implementation" sidebar at the end of this article. Most recently, the SAC produced a Standards Policy for NIST on voluntary consensus standards matters that has been adopted by the NIST Executive Board.

In consultation with the SAC, each operating unit within NIST is defining its own strategy for standards-related activities. In the sidebar, a broad-based checklist is provided for actively managing standards programs at NIST. Although this entire document focuses on the operating units at NIST, the guidance should be equally valid and useful for other agencies as they manage their own standards activities. SAC members, along with the operating unit's management, are responsible

for answering the questions on the checklist for their operating units. The answers provide the backbone of the standards portion of their operating unit strategic plans and thus incorporate strategic standards management into the system by each operational unit.

#### **Next Steps**

At NIST, as at businesses interested in strategic standards management, it is advisable that management integrate and continually update the information discussed in the checklist into its current strategic process for work selection and resource allocation. In many cases, standards activities support technical programs "hand-in-glove." Whether or not that is the case in every operating unit, the information on standards activities will provide new insights for the management process. It is envisioned that completing the checklist would involve not only top management but also all staff involved in standards activities.

"Very simply, companies began to assess their standards activities in terms of their missions, goals, and overall strategic plans. They viewed standards activities as central to achieving key business goals."

The information collected from the checklist, coupled with strategic standards management planning, will serve to demonstrate NIST's long-term commitment to standards activities. Each operating unit would determine the resources

needed to support its work program, including time and cost requirements for adequate staff participation. Funding would also cover costs associated with developing and operating internal information management, a part of which would be the standards information. Standards resource allocation would include research in support of an existing or planned standard.

Management may also wish to consider implementing recognition programs to emphasize the high value that NIST and the operating unit place on standards activities. Staff would then be encouraged and feel empowered to participate in standards activities.

Determining the level of education or training needed for each standards-related activity for each operating unit will be a critical task. For example, an International Organization for Standardization (ISO) standardization activity requires understanding of the ISO directives and the ISO process. Participants in standards activities related to their professional employment at NIST must be constantly aware that they are inseparably identified with NIST. Consequently, they have a fundamental obligation to know and act in conformity with established policies and program objectives of NIST, the Department of Commerce, and the administration.

The OSS will provide a short training module for new employees as a means of highlighting NIST's standards policy, standards activities, the function of the SAC, and an overview of the ANSI and private-sector voluntary standards processes.

Every two years, the OSS strategic planning process will review the NIST Standards Policy, SAC charter, checklist, and

(Continued on Next Page) > >

#### **b**

#### Towards Strategic Management of Standards Activities at NIST (Continued from Previous Page)

other relevant processes. When the SAC reviews its charter, it will evaluate its activities and attempt to correct any deficiencies, thus providing a continuous improvement cycle.

#### **Summary**

As this publication goes to press, NIST operating units are using strategic standards management to varying degrees. The next steps are to (1) increase the use of strategic standards management; (2) identify issues that have arisen from using strategic standards management and the checklist; and (3) modify the checklist accordingly. Other agencies can and should modify the checklist to fit their specific standards needs and report to the Interagency Committee on Standards Policy on their success and suggest changes where appropriate.

In conclusion, NIST recognizes the important role that strategic standards management has played in the private sector, as well as the role it can play in the public sector. Through the SAC, NIST will continue to implement strategic standards management. Each NIST operating unit will work with the checklist, refining it as the operating unit sets its own priorities and implements activities in support of the standards-related work associated with its mission. All of this is being carried out and will continue to be carried out in order to fulfill NIST's mandates from the Government Performance and Results Act and the NTTAA.

#### Notes

- <sup>1</sup> In this instance, "standards" refers to documentary (also termed normative or voluntary consensus) standards.
- <sup>2</sup> Collins, Belinda L., "The National Technology Transfer and Advancement Act Plan for Implementation," NISTIR 5967, National Institute of Standards and Technology, January 1997.
- <sup>3</sup> ANSI has a trademark on the symbol "SSM" for Strategic Standardization Management.
- <sup>4</sup> Betancourt, D., and Walsh, R., "The Evolution of Strategic Standardization Management," Standard View, Volume 3, No. 3, September 1995.
- <sup>5</sup> Fisher, G.M., "Keynote Address, delivered at the American National Standards Institute Annual Conference," Chicago, IL, March 31, 1992.
- <sup>6</sup> Camp, C.R., "Standards Management and Texas Instruments," ASTM Standardization News, December 1997.
- <sup>7</sup> In some rare cases, an employee may be authorized to participate as an individual technical expert using his/her annual leave and personal finances. Even in these cases, however, the expert is likely to be perceived as associated with NIST.



#### A Checklist for Strategic Standards Management Implementation

In order to measure progress (or its lack) in standards management, it is crucial to gather current information on standards activities at the NIST operating unit level and their support mechanisms. The Office of Standards Services (OSS) will collate operating unit information and create an annual NIST report on its implementation of strategic standards management for inclusion in the Annual Report to the Office of Management and Budget on Federal Standards-Related Activities. The operating units can use the following checklist to provide the needed information to OSS to establish a solid baseline of standards information. This checklist is meant to be representative rather than all-inclusive. Other questions could certainly have been posed, but we chose a subset of questions that would get everyone thinking strategically about their operating unit's standards work as well as other activities that are currently being considered. The questions apply to the government's budget fiscal year of October 1 to September 30. This checklist can be helpful to any enterprise interested in embracing a strategic approach to standardization.

**Policy/Priorities:** How does your operating unit (OU) keep informed about NIST policies, procedures, and guidance for participation in standards activities? What is your OU's process for selecting and terminating standards activities? Based upon your OU's program of work, what are the specific, key standards activities in which your OU is participating this year? Of these, which standards activities are new? What standards activities have been "sunsetted" by your OU this year?

Coordination (Policy and Technical, but Primarily Technical): Who coordinates the standards activities for your OU as specified in his/her performance plan? Who attends standards development meetings? Who is responsible for ensuring that representatives are adequately prepared? What are your OU procedures for ensuring that standards activity participants understand that they are representatives of NIST? What are your OU procedures for ensuring that those who work on international standards have access to and understand the rules for members of U.S. delegations, U.S. experts, etc. (e.g., the ANSI guide for U.S. delegates to IEC/ISO meetings)? What are your OU's mechanisms for OU and NIST-wide coordination on standards positions?

**Resources:** How much does your OU spend on standards activities? How do your OU program reviews and project selection take into account the necessary resource allocation for standards activities? What is the projected return on investment for your standards activities?

**Information/Training:** Are your technical staff and management aware of the latest information available from NIST's standards library, the National Center for Standards and Certification Information, or the OSS Web site at **http://ts.nist.gov/oss?** How does your OU learn of new relevant standards activities? What resources are allocated for standards-related training (internal and external)? Who conducts this training?